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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/399,281	09/17/1999	JAMES B. KELLER	5500-48300	2101

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LAWRENCE J MERKEL
CONLEY ROSE & TAYON P C
P O BOX 398
AUSTIN, TX 787670398

EXAMINER

ETIENNE, ARIQ

ART UNIT

PAPER NUMBER

2157

DATE MAILED: 03/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/399,281

Applicant(s)
Keller et al

Examiner
Arlo Etienne

Art Unit
2155



-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Sep 17, 1999

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-19 is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-19 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4-6 20) ☐ Other:

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DETAILED ACTION

1. This is in response to application, with the above serial number, filed on September 17, 1999 in which claims 1-19 are presented for examination. Claims 1-19 are pending in the application.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1-4 and 6-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Naven (5,936,956).

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As per claims 1 and 9, Naven discloses a method and apparatus for routing packets among a plurality of nodes wherein a plurality of virtual channels are used for transmitting packets between the nodes, each virtual channel being associated (or assigned) a buffer for storing received packets (including control information) directed to a particular node (see col. 4, lines 29-54). Naven further discloses the limitation of determining a virtual channel to which a particular packet or control information belongs (see col. 4, line 43). Therefore, Naven discloses all the limitations of independent claims 1 and 9; see also abstract, col. 1, lines 21-39, col. 2, lines 1-29 and claim 1, e.g.,).

As per claims 2 and 10, Naven further discloses receiving and storing data information specified by control information in data buffers assigned to the virtual channels (see passage above).

As per claims 3-4 and 11-13, Naven discloses (at least implicitly) routing packets among a plurality of nodes (egress node, e.g., see claim 1). As shown above, Naven discloses storing data and/or control information received from a particular (first) node into a buffer assigned to a particular (first) virtual channel (see passages above). The claimed requirements for receiving and storing second and/or third set of data and/or control information into second and/or third

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designated virtual channel(s) by/at second and/or third node(s) are considered to be mere duplication of the same process/limitation already covered by the reference to Naven and, therefore, these further requirements are considered to be taught by Naven.

As per claims 6-8, Naven discloses determining a particular virtual channel to which a particular packet or control information belongs (see col. 4, lines 40-49). Therefore, Naven at least implicitly discloses the limitations of the claims 6-8 since the reference does limit the virtual channels any particular types.

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naven.

As per claims 5 and 19, Naven fails to explicitly disclose decoding a command field of the control information/packet.

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However, official notice is taken that both the concept and advantages for decoding a command/instruction are well known in the art. Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to decode a command field of a control packet in order to convert coded information (or instruction) contained in the command field back to its original form as this conversion would help in executing the command carried by such control packet.

As per claims 14-15, the requirements of removing the control and data packets from their respective buffers in order to respond or process such packets may be considered to be implicit to Naven's teachings (see abstract, e.g.).

As [er claim 16, Naven fails to explicitly discloses providing a data packet to a cache or a memory controller in response to a control packet (command or instruction). However, official notice is taken that both the concept and advantages for a processor to send a command to a main storage device to request data (often used) to be cached in its local memory are well known in the art, as this would improve the speed of the data retrieval process and thereby the operational speed of the overall system.

As per claims 17-18, the requirement of forwarding information from one node to another node fall under the basic functions of a router or routing system/method and, therefore, is considered to be implicit to Naven's teachings.

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thorson et al, Salovuori et al and VanDoren et al are cited for incorporating general information related to the claimed invention. Applicants are requested to consider the prior art references when responding to this office action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ario Etienne whose telephone number is (703) 308-7562. The examiner can normally be reached on Mondays-Thursdays from 7:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached on (703) 305-9648 or at e-mail address ayza.sheikh@uspto.gov.

The fax phone numbers for this Group are: **After-final (703) 746-7238**

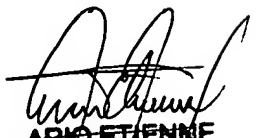
Official (703) 746-7239

Non-Official/Draft (703) 746-7240

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

A.E.

March 19, 2002


ARIO ETIENNE
PRIMARY EXAMINER